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1922



Administrative County of Middlesex.

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# ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

**YEAR 1921.**

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# Administrative County of Middlesex.

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## *ANNUAL REPORT of the County Medical Officer for the Year 1921.*

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### Vital Statistics and Disease Prevalence.

AREA.—The area of the County of Middlesex is 148,701 acres. It comprises 37 separate districts for local government, viz., three Municipal Boroughs, 30 Urban Districts and four Rural Districts. This is an alteration compared with the previous year, when there were two Municipal Boroughs and 31 Urban Districts, owing to the incorporation during 1921 of Acton as a Municipal Borough.

POPULATION.—In June, 1921, the Census of the population of the Country was taken, and accurate information of the alteration which has taken place in Middlesex since the previous Census in 1911 thus becomes available. The results show that although there has been considerable increase of the population in the last 10 years, this has not been so great as in the two previous decades. In 1891 the population was 543,223, and in 1901 it was 792,476, or an increase of 45·9 per cent.; in 1911 the population was 1,126,694, or an increase of 42·2 per cent.; whilst in 1921 the population was 1,253,164, or an increase of 11·2 per cent. Middlesex is one of six counties in which an increase of more than 10 per cent. took place, and is the fifth on the list of the highest increases which took place during the decade, whereas between 1891-1901 and 1901-11 the percentage increases of the County population were considerably in excess of any other counties.

The amount of increase varies considerably in the different districts which make up the County. The highest *actual increases in numbers* were Hendon (urban), an increase of 17,208, Willesden 11,455, Tottenham 9,277, Finchley 7,300, Ealing 6,531, Southgate 5,508, Wembley 5,495, Twickenham 5,438. The *percentage increase*, as compared with the population in 1911, was most marked in some

of the smaller districts, viz., Kingsbury 126 per cent. increase, Wembley 51 per cent., Hayes 48 per cent., Ruislip-Northwood 47 per cent., and Hendon (urban) 44 per cent.

There are now in the County two districts, viz., Willesden and Tottenham, with populations well over 100,000 inhabitants; seven districts, viz., Hornsey, Ealing, Edmonton, Acton, Enfield, Hendon (urban) and Wood Green, with populations between 50,000 and 100,000; and nine districts, viz., Heston and Isleworth, Finchley, Chiswick, Southgate, Twickenham, Southall-Norwood, Staines (rural), Teddington and Hanwell, with populations varying between 20,000 and 50,000. Of the remaining 19 districts, nine have populations between 10,000 and 20,000, in five the population is between 5,000 and 10,000, and in five between 1,000 and 5,000.

The number of males and females in the County enumerated at the Census in 1921 is as follows:—Males 578,829, females 674,335. At the previous Census in 1911 females also exceeded the males, the figures then being, males 525,431 and females 601,034; the excess of females at the later Census is, however, distinctly greater than in 1911. Whilst in 1911 there were 1,143 females to every 1,000 males, in 1921 there were 1,165 females to 1,000 males. This increased preponderance is no doubt largely and perhaps entirely the result of the war.

District.	Acreage.	Population.		Percentage increase.	Persons per acre 1921.
		1911.	1921.		
<i>Urban—</i>					
Acton ( <i>Borough</i> )	2,305	57,497	61,314	6.6	26.6
Brentford ...	1,091	16,496	17,039	3.3	15.6
Chiswick ...	1,250	38,772	40,942	5.6	31.9
Ealing ( <i>Borough</i> )	2,946	61,222	67,753	10.7	23.0
Edmonton ...	3,894	64,797	66,809	3.1	17.1
Enfield ...	12,602	56,338	60,743	7.8	4.8
Feltham ...	1,790	5,135	6,329	23.3	3.5
Finchley ...	3,384	39,419	46,719	18.5	13.8
Friern Barnet	1,304	14,924	17,381	16.5	13.3
Greenford ...	3,042	1,064	1,463	37.5	0.4
Hampton ...	2,045	9,220	10,677	15.8	5.2
Hampton Wick	1,306	2,417	3,265	35.1	2.5
Hanwell ...	1,066	19,129	20,485	7.1	19.2
Carried forward	38,025	386,430	420,919	—	—



District.	Acreage.	Population.		Percentage increase.	Persons per acre, 1921.
		1911.	1921.		
Brought forward	38,025	386,430	420,919	—	—
<i>Urban—continued.</i>					
Harrow	2,028	17,074	19,468	14.0	9.6
Hayes	3,311	4,261	6,304	47.9	1.9
Hendon	8,382	38,806	56,014	44.3	6.7
Heston and Isleworth	6,851	43,313	46,729	7.9	6.8
Hornsey ( <i>Borough</i> )...	2,875	84,592	87,691	3.7	30.5
Kingsbury	1,829	821	1,856	126.1	1.0
Ruislip-Northwood...	6,585	6,217	9,113	46.6	1.4
Southall-Norwood	2,575	26,323	30,261	15.0	11.7
Southgate	3,596	33,612	39,120	16.4	10.8
Staines	1,907	6,755	7,329	8.5	3.8
Sunbury	2,658	4,607	5,350	16.1	2.0
Teddington	1,214	17,847	21,216	18.9	17.5

Tottenham ...	...	...	3,014	137,418	146,695	6.8	48.6
Twickenham	...	...	2,421	29,367	34,805	18.5	14.4
Uxbridge ...	...	...	868	10,374	12,923	24.6	14.9
Wealdstone ...	...	...	1,061	11,923	13,439	12.7	12.7
Wembley ...	...	...	4,564	10,696	16,191	51.4	3.5
Willesden ...	...	...	4,385	154,214	165,669	7.4	37.7
Wood Green	...	...	1,626	49,369	50,716	2.7	31.2
Yiewsley ...	...	...	894	4,315	4,845	12.3	5.4
<i>Rural—</i>							
Hendon ...	...	...	11,319	14,160	17,660	24.7	1.5
South Mimms	...	...	6,104	2,805	3,135	11.8	0.5
Staines ...	...	...	17,975	21,926	25,065	14.3	1.4
Uxbridge ...	...	...	12,625	9,240	10,651	15.3	0.8
The County ...	...	...	148,692	1,126,465	1,253,164	11.2	8.4

It will be seen from the table at end of the Report, that for calculating the birth and death-rates the Registrar-General has supplied an estimated population of the County and districts at the middle of the year, which is slightly greater than the population enumerated at the date when the Census was taken. The rates for 1921 given in the Report are based on these figures.

The estimated population supplied by the Registrar-General for the year 1920, on the information then available to him, was greater than that for 1921, and also greater than the actual population enumerated in 1921. Hence, in comparing the rates of the County for 1921 with those of 1920 it must be remembered that the latter are too low, and this probably is the explanation of the fact that the general death-rate and other rates in 1921 are slightly higher than in 1920.

**BIRTHS AND BIRTH-RATE.**—The corrected number of births belonging to the County during 1921 was 25,191, equal to a birth-rate of 20·0 per 1,000 population. These figures are a decrease on those of 1920 when the number of births (29,842) and the rate (23·3) were unusually high. They are, however, higher than in each of the three years 1917-19, and about the same as in 1916. Of the total births, 970 were illegitimate and 24,221 legitimate. The number of male infants was 12,972 and female infants 12,219. The birth-rate for England and Wales for 1921 was 22·4 per 1,000 population, and of London 22·3, both higher than that of Middlesex.

From returns made at the end of the year by midwives practising within the County area it appears that 11,300 births were attended by them. Details as to the number of women in each district attended in their confinements by midwives are given later in the Report.

It will be seen from the table at end of the Report that the birth-rates vary considerably in the different districts. Excluding the small district of Hampton Wick, these range from 23·5 in Brentford to 15·5 in Southgate.

**DEATHS AND DEATH-RATES** (all causes).—During the year 12,763 deaths occurred amongst residents belonging to the County. This is equivalent to a death-rate of 10·1 per 1,000. It is slightly higher than in the preceding



year, when it was 9·6, but is one of the lowest rates recorded since 1901. This rate compares favourably with other death-rates. Thus, the rate for England and Wales was 12·1, for London 12·4, and for the great towns 12·3 per 1,000. The rates for each of the separate districts are given in the tables at end of the Report, as also are the causes to which the total deaths in the County were due.

Analysis of the table of causes of death shows that the specified diseases to which the highest number of deaths are attributed are :—

Deaths.			Deaths.		
Cancer...	...	1,497	Bronchitis	...	916
Heart disease	...	1,448	Pneumonia	...	910
Tuberculosis (all forms)		1,180	Cerebral hæmorrhage		708

Reference will be made to the more important of these complaints, from the point of view of preventive medicine, under their respective headings. The number of deaths from cancer is the highest recorded in the County, and has been slowly increasing. On the other hand, the deaths from tuberculosis show a slow but steadily sustained decrease. It is interesting to note the relative position during recent years which the specified causes of disease bear to one another. In 1921 and 1920 respectively, the diseases causing the greatest number of deaths were first, cancer; second, heart disease; and third, tuberculosis; in 1919 their order was heart disease, cancer, tuberculosis; in 1918, when the epidemic of influenza occurred, their order was influenza, tuberculosis, heart disease, cancer; and in 1917, tuberculosis, heart disease, and cancer. Tuberculosis and cancer have thus reversed their relative positions.

INFANTILE MORTALITY.—In 1921 a total of 1,681 deaths were recorded amongst infants under one year of age, or an infant mortality of 67 per 1,000 births. This is higher than in 1920, when the very low rate of 57 was attained, but with this exception it is the lowest rate since 1900. More than one-third of the total deaths, viz., 655, are attributed to congenital debility and malformation or prematurity. Diarrhœa was responsible for 317, or more than double the number from this cause in

1920, probably due in large measure to the prolonged heat during 1921. The next highest specified cause was pneumonia, viz., 190 deaths. The districts in which the highest rates are recorded are Uxbridge (rural), Chiswick, Twickenham, Hanwell, Greenford and Staines (urban).

The infantile mortality in other parts of the country was—England and Wales, 83; London, 80; and the great towns, 87 per 1,000 births.

**SMALLPOX.**—One case of this complaint was notified in Wood Green in January. The patient was promptly removed to the Uxbridge Joint Smallpox Hospital, all contacts were kept under close observation, and those needing it were re-vaccinated. No spread of infection occurred. Exhaustive inquiry as to the source of infection failed definitely to establish this. Another patient, during May, in the district of Friern Barnet, at first gave rise to suspicion of suffering from smallpox, but this was found not to be so.

**SCARLET FEVER.**—The year was noteworthy for a very marked increase in the amount of scarlet fever. During the greater part of the period of the war the incidence of this complaint was low. In 1919 there was increased prevalence, which continued during 1920, and the first half of 1921, and about the beginning of September a further rapid increase took place, which continued till the fortieth week, when the number reached the highest point. The number of cases then decreased, but was still high at end of the year. The total number for the year was 8,130, giving a case-rate of 6·4 per 1,000 persons as compared with 3·5 in 1920. This number, and also the case-rate, is the highest recorded in the County since 1900. The complaint, however, was largely of mild form and only 43 deaths are recorded, or a death-rate of 0·03 per 1,000 persons. The corresponding death-rate for England and Wales is 0·03, for London 0·06, and for the 96 great towns 0·04 per 1,000 persons living.

**DIPHTHERIA.**—The number of notifications was 3,720, equal to an incidence rate of 2·9 per 1,000, a slight increase on the figures of the previous year. The death-rate is also higher, viz., 0·23 per 1,000 as compared with 0·19 in

1920. The corresponding death-rate in England and Wales was 0·12, in London 0·25, and in the 96 great towns 0·15 per 1,000. During the last two years diphtheria has been markedly prevalent as compared with the previous ten years. The mortality per cent. of cases was 9·7, or about the same as in 1920, which, as stated in that year's Report, was much less than in the earlier years of the present century, when it ranged from 10 to 14 per cent. The highest number of cases occurred during January and February, decreasing during the ensuing months till the middle of September, after which date there was a steady increase to the end of the year.

The districts in which the incidence of the complaint was most marked are Hampton and Edmonton. It was also marked in Acton, Brentford, Harrow, Wealdstone, Willesden and Tottenham. It was lowest in the four rural districts, in Feltham, Southall-Norwood and Ruislip-Northwood, and no cases were notified in Kingsbury.

ENTERIC FEVER.—A total of 81 cases are recorded as compared with 79 in the previous year, but the number of deaths is greater, namely 18, giving a death-rate of 0·01. In England and Wales the death-rate was 0·02 per 1,000. The largest number of cases relative to the population, viz., 11, occurred in Finchley. Ten of these were notified between the end of September and the first week in December. No definite cause for the cases can be stated, but it would appear that the infection was contracted within the district.

PUERPERAL FEVER.—The total number of cases notified was 80, equivalent to a case incidence of 3·1 per 1,000 births, as compared with a rate of 2·6 per 1,000 births in 1920; 1·8 in 1919; and 1·7 in 1918. It is the highest case-rate recorded in the County since 1901. Of the total cases only 18 occurred in the practices of midwives. From returns made by midwives it appears they attended a total of 11,300 births, or, excluding 1,971 births attended by midwives residing just outside the boundary and practising both within and without the County, a net total of 9,329. On the last-mentioned figure the case-rate in the practices of midwives is 1·8 per 1,000 births. The total number of



deaths was 34, or a death-rate of 1·5 per 1,000 births. Amongst midwives' cases five cases died.

OPHTHALMIA NEONATORUM.—This complaint, viz., inflammation of the eyes of infants, is fraught with much risk of blindness or impaired vision, and became notifiable in 1914. The cases notified have been, during the last four years, as follows :—

Year.	Cases.	Rate per 1,000 Births.	Year.	Cases.	Rate per 1,000 Births.
1918	154	8·10	1920	198	6·63
1919	170	8·26	1921	139	5·55

The above figures show a satisfactory decline in the proportion of cases occurring. Of the number occurring in 1921, a total of 61 were notified amongst births attended by midwives and 78 by doctors. As regards the former, or 61 cases, the following information is available as to after-results :—

38 cases were treated at home.

23 cases were treated at hospital.

58 cases recovered with *unimpaired* vision.

2 cases recovered with some *impaired* vision.

In no case did total blindness result.

1 child died from another condition.

MEASLES.—It has previously been pointed out that this disease shows tendency to become periodically prevalent at intervals of about two years. In 1920, judged by the number of deaths, there was evidence of such increase as compared with 1919, the number of deaths being respectively 112 and 53. The deaths in 1919 were the lowest recorded since 1900, and it is accordingly satisfactory to record that this lowest record was further improved on by the number in 1921, viz., 14 deaths. No death is recorded in the four rural and several urban districts, whilst the highest number in any one district was four deaths.



CEREBRO-SPINAL FEVER.—A total of 9 cases was notified, which is lower than any year since 1914. The notifications were made, 1 in the first quarter, 5 in the second, none in the third, and 3 in the fourth quarter of the year.

ENCEPHALITIS LETHARGICA.—The notifications of this complaint since the beginning of 1919 have been as follows:—

—	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
1919      ....	12	4	2	10
1920      ....	13	9	5	17
1921      ....	37	13	—	3

The total number of deaths was 28.

ACUTE POLIOENCEPHALITIS.—One case was notified, at Chiswick.

ACUTE POLIOMYELITIS.—The total number notified was 18, as compared with 12 in 1920 and 29 in 1919; 15 of these cases occurred in the latter half of the year.

INFLUENZAL PNEUMONIA.—In the first, second and fourth quarters of the year, 5, 6 and 3 cases respectively occurred, no notifications having been recorded in the third quarter.

The figures for pneumonia were 348 in the first, 159 in the second, 101 in the third, and 210 in the last quarter of 1921. The number of deaths from all forms of pneumonia was 910, or a death-rate of 0·72 per 1,000.

TUBERCULOSIS.—The following figures show the number of notifications of tuberculosis in each of the last four years:—

—	1918.	1919.	1920.	1921.
Pulmonary ....	2,218	2,150	1,887	1,670
Other forms ....	403	427	331	329
Total ....	2,621	2,577	2,218	1,999

The incidence or attack rate in 1921 per 1,000 was, for all forms of the disease, 1·5, as compared with 1·7 in the previous year, and for pulmonary tuberculosis 1·3 as compared with 1·4.

The actual figures for the last four years show a progressive and substantial diminution in the number of new cases, and this affords justification for regarding it not merely as a temporary and transient difference probably attributable to some temporary and perhaps accidental cause, but as being due to a steady decrease having set in.

The total deaths from all forms of tuberculosis in 1921 was 1,180, of which 944 were caused by pulmonary tuberculosis or consumption. For comparison the figures of each of the years since 1917 are given :—

Year.	Phthisis or Pulmonary Tuberculosis.		All forms of Tuberculosis.	
	Deaths.	Death-rate per 1,000 Living.	Deaths.	Death-rate per 1,000 Living.
1918	1,386	1·20	1,642	1·43
1919	1,013	0·86	1,236	1·05
1920	974	0·76	1,178	0·92
1921	944	0·75	1,180	0·94

It will be noted that the total deaths are about the same as in 1920, but that there is decrease in the number due to pulmonary tuberculosis. It has been mentioned earlier in this Report that the estimated population for 1920 (as shown by result of the Census enumeration) was too high, and that accordingly the rates for that year are too low. Hence the rates for 1921, in comparison with the previous year, are more satisfactory than appears from the above figures.

CANCER.—It has been pointed out earlier in the Report that the highest number of deaths in the County during 1921 from any single specified cause is that from cancer, and that the number has been slowly increasing. On referring to previous years it is found that increase in the

number and the death-rate has been maintained over many years. Thus in 1906 the death-rate was 0·82 per 1,000 (836 deaths), in 1911 it was 0·89 per 1,000 persons (1,005 deaths), in 1916 the death-rate was 1·12 per 1,000 (1,311 deaths), and in 1921 it was 1·19 per 1,000 persons (1,497 deaths). Increase is not confined to Middlesex, but has also been noticed in other areas in the country, and in the country as a whole. The increase in the number of deaths from cancer may in part be accounted for by the facts that with improved and additional facilities for examination and increased knowledge of the complaint diagnosis is more readily possible, and certification of the cause of death is more precise. Allowing for this it is probable that there is a real increase.

The decrease, due to improved sanitation, in the death-rates of other diseases, and especially in diseases which caused death in the early years of life, has resulted in a greater number attaining the higher ages at which persons are more liable to be affected with cancer, and thus gives rise to an increase in deaths from this cause. Present knowledge as to the precise cause of cancer is incomplete, and until more is known as to the various factors which play part in causing the disease in its different forms, it is not possible to gauge to what extent it comes within the scope of preventive medicine, and what precautionary measures might be adopted. Different articles of food have at times been alleged as causes; the disease has been stated to be a constitutional or a blood disease, to be contagious, and to occur in certain houses more frequently than others. It has also been said to be a hereditary disease, but this has not been established as a fact based on precise statistics and opinion on the point is divided. Much scientific research work is being carried out to elucidate the factors which have influence, and until this throws light on the problem it cannot be said what, if any, preventive measures are possible. At the present time the cure of cancer appears only possible by resort in the early stage to operative or surgical treatment. It is very important that persons at the first sign or symptom indicating a suspicion of the disease should seek advice with a view to such treatment if found necessary.



**Scheme dealing with Tuberculosis.**

The year 1921 is notable in connection with the attempt to cope with tuberculosis in that, on the 30th April, 1921, the provision of treatment for insured persons suffering from the complaint ceased to be a benefit under the National Health Insurance Acts, and under the Public Health (Tuberculosis) Act the treatment of tuberculosis was made compulsory on County Councils and County Borough Councils. As result the agreement between the County Council and the Middlesex Insurance Committee was terminated, and the treatment of tuberculosis became a measure of preventive medicine. The passing of the Public Health (Tuberculosis) Act necessitated no alteration in the policy upon which the County Council had acted when they initiated the scheme in 1913. At that time it was decided that if treatment of the disease was undertaken, it should not be limited to insured persons but that the scheme which was adopted (and which was based upon the scheme formulated by the Departmental Committee which reported on the matter in 1912) should be applicable to all members of the community, and in carrying on the work since 1913 this decision has been consistently observed. The only difference between insured and non-insured was that payment towards the treatment of the former was made by the Insurance Committee, whereas the latter, in such cases as the financial circumstances of the family justified, were asked to and did contribute towards their maintenance in institutions.

The scheme since its commencement has included the following :—

- (1) The provision of Tuberculosis Dispensaries serving definite areas, and staffed by expert Medical Officers working in a consultative capacity with medical practitioners and in intimate relationship with local Medical Officers of Health.
- (2) The provision of institutional accommodation, (i) Sanatoria for early cases, and (ii) Hospitals for the treatment of more advanced cases, for advanced cases needing segregation from the point of view of prevention of spread of the disease, and for surgical cases.



The County has been sub-divided into six Dispensary Areas, and for each of these the County Council has appointed a Tuberculosis Officer who is in charge, under the County Medical Officer of Health as Chief Administrative Tuberculosis Officer.

In each area there is a head dispensary, and where necessary, to meet the convenience of patients, one or more sub-dispensaries. Thus, in each of two areas one dispensary has been found sufficient; in one there is a head and one sub-dispensary; in each of two other areas there is a head and two sub-dispensaries; and in the remaining area one head dispensary and three sub-dispensaries. This makes a total of six head and eight sub-dispensaries.

At one of the dispensaries, viz., Hounslow (which building was originally the Old Cottage Hospital), provision exists for 16 beds.

A list of these dispensaries and their addresses, together with the name of each Tuberculosis Officer, has been given in previous Reports, and as they are unchanged is not repeated. During 1921 the County Council, in accordance with the suggestion in Circular 190 of the Ministry of Health, again circularized all doctors practising in the County, drawing their attention to the importance of strict compliance with the requirements of Article V of the Public Health (Tuberculosis) Regulations, 1912, as to notifying cases, and at the same time supplied them with the names of the Tuberculosis Officers and the addresses and telephone numbers of the dispensaries, so that they should freely avail themselves of the assistance provided by the Council's scheme.

In connection with Institutional treatment the scheme has been considerably developed. In the absence, at the commencement of the scheme, of their own institution, arrangements had to be made by the County Council for sending patients to institutions privately owned or belonging to other authorities, and for this purpose agreements were made from time to time for the reservation of beds at some institutions, whilst a large number have also been sent to other institutions, the governing bodies of which did not desire to enter into binding agreements. The

largest number of beds reserved by agreement is at Clare Hall. Further, the Council rent a block of buildings at Isleworth belonging to the Brentford Guardians and containing 40 beds for male advanced pulmonary cases. As soon as the war ended the County Council acquired Harefield Park for the purposes of a sanatorium; and this, after reconstruction of the military hospital buildings on the site, has been approved by the Ministry of Health as a sanatorium for 318 beds. In October, 1921, the first portion of the sanatorium, viz., 50 beds, was opened, and in December the children's block was ready to admit cases (56 ordinary beds and 8 beds for observation cases). By the end of the year further beds for female patients were ready, and the total number of patients in the institution was then 113, viz., 76 female adults and 37 children.

The institutions at which beds were reserved for Middlesex cases during 1921 are the following:—

Clare Hall (193), Chilton (6), Merivale (6), Fairlight (16), Victoria Home (6 surgical), Oak Bank (20), \*St. George's Home (32), \*Winchmore Hill (30).

Patients were also sent to the following institutions, with the authorities of which no agreements existed:—

Alexandra Hospital; Benenden; Brompton Hospital; Frimley Sanatorium; Hip Hospital, Sevenoaks; Fleet; Heath End; City of London Hospital; Eversfield; Great Ormond Street; Grosvenor; Harpenden; University College Hospital; Hendon Cottage Hospital; Hounslow Hospital; Kelling; King Edward VII, Midhurst; London Hospital; Maltings Farm; Cranbrook; Mount Vernon; Prince of Wales's; Royal Chest Hospital; Royal National Sanatorium, Bournemouth; Royal National Hospital, Ventnor; Royal Sea-Bathing Hospital; St. Anthony's Home; St. Columba's Home; St. Luke's Home; St. Thomas's; St. Vincent's Home; Treloar's Home, Alton.

Notice was given to terminate all agreements with the authorities of institutions for pulmonary tuberculosis

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\* Agreement terminated 31st March, 1921.

except Clare Hall, the beds at which will in future be used for male patients of the "hospital" type, and for female patients of the "hospital" and "advanced" types of the complaint. A few reserved beds for surgical tuberculosis have also been kept on.

Owing to the policy which the Council had adopted in regard to tuberculosis, and the steps which had been taken in the years since 1913 in developing the scheme laid down, the coming into force of the Act making treatment of tuberculosis compulsory on County Councils necessitated no alteration in the work which they already had well in hand, except as regards minor details in administration, to adjust the work to meet the new provisions. An important detail was to ensure that Tuberculosis Officers should have information of all cases of tuberculosis notified in their areas so that they might get into communication with the doctor notifying and offer any assistance necessary. To effect this, amendment in the Public Health (Tuberculosis) Regulations was made by the Ministry of Health, and copies of the notification are now supplied weekly through the County Medical Officer to Tuberculosis Officers.

It was also decided that in future the friends of all patients, whether insured or non-insured, should, in cases where the financial circumstances justified, be required to contribute towards institutional treatment.

At the same time that these alterations were effected a Memorandum (30 T.) was issued, dealing with the special arrangements which should be made for the treatment of tuberculous discharged soldiers and sailors, and setting out the special services which it was desired should be rendered by Tuberculosis Officers in connection with pensions administration. These have thrown additional work on these officers during the year.

The nature of the work carried out during the year 1921 will be gathered from the following joint report by the Tuberculosis Officers and from the statistics which follow this :—

All notifications received by the County Medical Officer from Medical Officers of Health are now forwarded to the Tuberculosis Officers, who take action with regard to the cases notified.



Co-operation between the Medical Officers of Health and the Tuberculosis Officers continues to be close. Any sanitary defects which come to the notice of the Tuberculosis Officers are reported to the Medical Officers of Health, and the County Medical Officer is informed that this has been done. Deaths, removals and changes of address are notified to the Medical Officers of Health.

Consultation takes place, in some areas, with a view to the completion and correction of lists of patients, &c., and the preparation of the Annual Reports by local Medical Officers of Health.

The Medical Officers of school clinics continue to send freely to the dispensaries any children in whose case they wish to have the opinion of the Tuberculosis Officer.

Co-operation between the Medical Practitioners and the Tuberculosis Officers is still cordial and close, and a majority of the patients attending at the dispensaries come up for examination, in the first instance, upon the advice of the practitioner.

The routine examination of contacts on the lines of Sir Robert Philips' "March Past" system, has not been found practicable. The idea of the "March Past" is, that the home of any positively diagnosed case of tuberculosis shall be visited by the Tuberculosis Officer, and every member of the household examined as a contact. In practice, this has been found unsatisfactory, for the following reasons:—

- (i) The time necessary for a proper conduct of the "March Past" is so great as to make it impossible, if the other routine consultatory and advisory work of the dispensary is to be properly carried out.
- (ii) It is practically impossible, when visiting the homes, to arrange for all members of the household to be present. The children are at school during the day, the adults at work, and the latter usually prefer to seek relaxation in the evening in preference to any medical examination. "Perfectly fit" contacts, moreover, are averse to examination, and often will not consent to it.
- (iii) Examination in homes, under noisy and inconvenient conditions, is unsatisfactory and unreliable.

In every case, the advisability of having *all* contacts examined, is repeatedly impressed upon new patients, both by the Tuberculosis Officers, and by the nurses on their visits. In many cases the response to this appeal is good, but the majority of adult "contacts" will not attend for examination if they feel quite well. In these cases "selected contacts" should be examined.



All cases are visited in their homes by our nurses at frequent intervals, not exceeding three months. The contacts are carefully observed by the nurses, discussions held as to their well-being with the parents or relatives, and inquiries made as to the health of those absent. Where there is any doubt as to the complete fitness of any member of the household an appointment for examination at the dispensary is made, and the said member is urged to attend. These efforts are almost invariably successful. As far as can be judged, no greater number of positive cases would be discovered, if it were possible to examine a huge number of perfectly fit contacts.

All children of school age are under the observation of the School Medical Officers, who send them to the dispensaries on finding the least suspicion of tubercular mischief.

Sanatorium treatment is, in our opinion, the best form of treatment in selected cases—all cases being subject to reconsideration, at intervals, as the effects of treatment in each particular patient become manifest.

Treatment for non-pulmonary tuberculosis is provided for in various hospitals and other institutions. Surgical apparatus, when required as an essential part of treatment, is provided by the Council.

There are no "care" or "after-care" Committees in connection with the tuberculosis dispensaries. The tuberculosis nurses visit frequently all the homes of patients, and give advice and supervision.

Shelters are provided for patients upon the recommendation of the Tuberculosis Officers, who supervise their use with the help of the nurses.

Endeavour is made, *e.g.*, by the use of sputum flasks and cards of instruction in mode of life, to prevent direct massive infection. Further facilities for segregation of advanced pulmonary cases in hospital are urgently needed.

The following statistics show the amount of work which was carried out at the *dispensaries* during 1921.

The number of persons examined for the first time during the period from 1st January to 31st December, 1921, at or in connection with the dispensaries, was :—

(a) Insured	...	...	...	...	1,745
(b) Non-insured	...	...	...	...	1,648
Total					3,393

These were classified as follows :—

(a) Diagnosed as suffering from tuberculosis	...	...	...	...	...	1,508
(b) Diagnosed as not suffering from tuberculosis	...	...	...	...	...	1,083
(c) Undiagnosed, remaining under observation	...	...	...	...	...	802
Total						3,393

The number of persons under treatment, supervision or observation on 31st December, 1920 and 1921, respectively, was :—

Year.	Insured.	Non-Insured.	Total.
1920	2,776	2,060	4,836
1921	3,339	2,586	5,925

The number of tuberculous discharged soldiers who were referred to the Tuberculosis Officers for the first time during 1921 was 310. Of these, 168 were recommended for institutional treatment, and the remainder (142) were kept under observation at the dispensaries.

The following figures are of interest with regard to tuberculous discharged soldiers:—

1. Number of discharged men visited during the year 1921 ... 1,334
2. Total number of visits of this kind ... 3,199
3. Total number of visits to all cases... 13,467
4. Proportion of (2) to (3) ... 1 to 4

*Institutional Treatment.*—The number of persons sent to institutions, 1st January to 31st December, 1921, was :—

		Sanatoria.		Hospitals.		Surgical Cases.	
		M.	F.	M.	F.	M.	F.
Ex-service patients (T.D.S.)	....	279	—	138	—	26	—
Insured	....	237	255	180	54	23	29
Non-insured—							
Adults	....	37	154	45	80	11	19
Children under 16	....	70	60	13	16	57	45
Total	....	623	469	376	150	117	93

On the 31st December, 1921, there was a total of 719 patients in institutions, viz., ex-Service patients 127, insured 311, and non-insured 281 (130 adults and 151 children under 16) patients.

The average number of patients under treatment in institutions, which was 380 in 1917, 442 in 1918, 481 in 1919, 594 in 1920, rose to 674 in 1921. The maximum number at one time was 749, during November, and the minimum was 600 during January.

*Concurrent Treatment and Training of ex-Service Men.*—In 1919 facilities became available for training, whilst undergoing treatment, ex-Service men invalided from the Army on account of pulmonary tuberculosis, with a view to teaching them occupations which might be carried on under conditions best suited to persons who had been affected by tuberculosis, and at the same time afford the individuals with a means of livelihood.

The following is a list of the approved institutions to which men from Middlesex have been usually sent :—

Papworth Colony, Cambridge ; Nayland Colony, Suffolk ; Kinson Farm Colony, Dorset ; Preston Hall Colony, Kent ; Hull Training Colony.

The occupations in which patients are trained include poultry farming, pig farming, game keeping, horticulture, cabinet making, carpentry, joinery, market gardening, tailoring, boot making and repairing, and for the more advanced cases, jewellery and basket making.

From the commencement of the scheme to the end of 1921, 52 ex-Service men resident within the County of Middlesex were admitted to farm colonies and have received concurrent treatment and training. Of this number 13 men were still at the farm colonies at the end of 1921. As regards the remaining 39 the following particulars are available :—

1 man died at the colony.

2 men were discharged (1 before completion of period and 1 at end of period recommended) and were later treated at sanatoria for their disease.

6 men were discharged at their own request and before the necessary period of training was completed.



- 7 men were discharged before completing the full period of training, as it was found their condition did not fit them for work.
- 7 men, on their discharge after treatment and training, removed from the County, 2 of these to take up small holdings in Hastings and Essex. As regards the remaining 5, information is not available.
- 1 man, owing to the fact that there was no immediate prospect of getting accommodation for his family in the settlement attached to the colony, left the latter before completion of training. He was fit for work, but unable to obtain employment.
- 6 men, on discharge and up to the end of 1921, had not succeeded in getting work in the occupations in which they had been trained.
- 4 men on discharge returned to the occupations in which they were engaged previous to their illness.
- 3 on discharge were employed at the occupations in which they were trained at the colony.
- 2 were given employment at the farm colonies at which they were trained.

Of the 38 patients who were discharged during that period the conditions on discharge were as follows :—

- |                       |                              |
|-----------------------|------------------------------|
| 9, disease arrested.  | 1, disease more active.      |
| 6, disease quiescent. | 1, not examined as patient   |
| 10, improved.         | did not return to Middlesex. |
| 11, not improved.     |                              |

The average length of stay in the colony is about six months; few patients have up to the present completed one year's course.

It will be seen from the above that up to the end of 1921 no great measure of success had followed the concurrent treatment and training of patients at farm colonies

Dr. Davies, one of the County Council's Tuberculosis Officers, in commenting on cases sent from his area, states:—

The farm colony system has not proved very successful amongst my patients, only one out of eight appears to have any prospect of working at the trade he was trained in at a farm colony. I think in very few instances will a



man learn sufficient of a trade at a colony to fit him to afterwards earn his livelihood thereby. In fact the Medical Superintendent at one colony states " We cannot train a man for employment in the open market, but for employment at our own industries at the colony." I think a very small number of cases will consent to this permanent isolation, and to extend the farm colony system for such few, would be economically unsound.

As a form of treatment for pulmonary tuberculosis, I consider the farm colonies excellent, but they have no advantage over a sanatorium with a proper graduated labour system attached. For those cases in which the disease is arrested (the only cases to my mind which are ever likely to be of value, economically, to the community) I find the training schemes under the Ministry of Labour to be much more suitable. The workshop discipline, quality of instruction, and hours of labour, are far more likely to test a man's fitness, and make him an efficient competitor in the general labour market, than the essentially more lax methods of a farm colony.

I do not know of any man of the type concerned who would consent to the permanent uprooting entailed by settlement in a farm colony village settlement, even if there were such accommodation.

### **Venereal Diseases.**

The arrangements made by the County Council for the treatment of venereal diseases, in compliance with the requirements of the Public Health (Venereal Diseases) Regulations, 1916, which were in force in previous years, were continued during 1921.

These arrangements included the following :—

- (i) Agreements, jointly with London and other authorities, for the diagnosis and treatment of patients at the London hospitals.
- (ii) Agreement with the Prince of Wales's Hospital, Tottenham, for the same purpose.
- (iii) Arrangements, jointly with Surrey County Council, for diagnosis and treatment at the Royal Hospital, Richmond.
- (iv) Publicity arrangements.
- (v) Arrangements for the free supply of salvarsan substitutes to approved practitioners.

As regards the above, the arrangements were in all respects similar to those of previous years, but in the Joint London Scheme, referred to under (i), certain alterations and improvements were put into effect.

The following is a return of the number of Middlesex patients treated during 1921. This shows separately the number dealt with at the Hospitals in the Joint London Scheme, the number treated at the Prince of Wales's Hospital, Tottenham, with which the County Council has a separate agreement, and the number treated at Richmond Hospital, Surrey.

The total number of new cases from all areas dealt with at the London hospitals was 25,418, of which 1,636 or 6·7 per cent. are credited to Middlesex, and the remainder to the other participating authorities in the Joint Scheme.

Compared with the figures of the previous year, 1920, the number of new patients from Middlesex shows a decrease of 500 in the case of the London hospitals, and a decrease of 139 in the case of the Prince of Wales's Hospital. As regards Richmond Hospital the number of new patients from Middlesex was 66 as compared with 82 in the preceding year. The attendances by patients decreased by 464 at the London hospitals, by 2,641 at the Prince of Wales's Hospital, and increased by 268 at Richmond Hospital.

The number of doctors practising in Middlesex who applied during 1921 to be placed on the approved list, entitling them to receive free supplies of salvarsan substitutes, was 4. The total number now is 40. In addition to these, there is a considerable number of doctors in London, by many of whom Middlesex residents would be treated, who are also on the list of approved practitioners.

Middlesex patients treated at											
	London Hospitals.				Prince of Wales's Hospital, Tottenham.				Richmond Hospital.		
	1918.	1919.	1920.	1921.	1918.	1919.	1920.	1921.	1919.*	1920.	1921.
Number of persons dealt with at the Clinics for the first time and found to be suffering from :—											
Syphilis	516	645	704	559	83	148	142	99	14	27	29
Soft chancre	5	19	26	31	2	13	10	2	1	3	—
Gonorrhœa	608	982	872	614	68	157	169	101	5	36	22
Not suffering from V.D.	242	407	534	432	49	114	110	90	4	16	15
Total	1,371	2,053	2,136	1,636	202	432	431	292	24	82	66
Total attendances	14,808	23,710	34,011	33,547	2,483	6,855	8,459	5,818	67	921	1,189
Number of "in-patient" days of treatment	2,892	2,242	1,846	2,981	230	314	304	172	13	—	—
Number of doses of salvarsan substitutes given	2,582	3,817	4,635	4,850	346	417	795	460	25	332	503

\* The figures at the Royal Hospital, Richmond, relate to the last few months of 1919. The Clinic here was opened in October, 1919, by agreement between the Hospital Board and the Surrey County Council, and the County Council of Middlesex arranged with the latter to contribute towards the expenses of the Clinic on the basis of user. Owing to the number of cases attending at the end of 1919, it was decided to increase the number of Clinics held to two in each week.



**Maternity and Child Welfare Scheme.**

The Maternity and Child Welfare Act, 1918, gave power to Local Authorities, within the meaning of the Notification of Births Act, to make such arrangements as were approved by the Local Government Board (now by the Ministry of Health) for attending to the health of expectant mothers, nursing mothers and children up to five years of age.

The Local Authorities concerned are District Councils and County Councils who have concurrent powers in the matter. Soon after the passing of the Act, in a circular issued to Local Authorities, the Government Department gave a detailed list of the various services which should be included in a scheme and impressed on authorities the importance of initiating and developing these services, having regard to the need of conserving infant life and health.

In most of the districts in the County infant welfare work (in so far as was possible under the powers in force before the passing of the Maternity and Child Welfare Act, 1918) had already been started by the District Councils, but in 11 of the smaller and more scattered districts it was not possible for these authorities to deal economically and efficiently with the work unless two or more of them acted jointly. Accordingly, in 1917, the County Council decided, with the consent of the districts concerned, to initiate the work by the appointment of health visitors for the area comprised within the above districts. On the passing of the Maternity and Child Welfare Act, 1918, and the issue of the circular of the Local Government Board referred to above, the County Council considered the whole subject, and a complete scheme was drawn up which was adopted in February, 1919, for the area of the 11 districts for which they were responsible. This scheme was comprehensive and included services, the relative importance of, and need for, which varies according to the area and the character of the population to which they are to be applied. Some of these services, *e.g.*, appointment of health visitors, provision of Welfare Centres, provision of midwives in areas insufficiently supplied, arrangements for the provision of milk or food, &c., are of a local nature, whilst others such as the provision



of various forms of institutional accommodation for ordinary and complicated confinements, for convalescence of nursing mothers and children, &c., are such as can best be dealt with for a large and well-populated area, and in some cases can with advantage be provided jointly with other authorities.

On the adoption of the scheme a conference was held with the District Councils, and as result three sanitary authorities of areas in which schemes had already been commenced, viz., Friern Barnet, Ruislip-Northwood and Staines (urban), decided to join the County scheme. The Council thus became responsible for the work in 14 districts. These are :—

Feltham.	Kingsbury.	Hendon (rural).
Friern Barnet.	Ruislip-Northwood.	South Mimms(rural).
Greenford.	Staines (urban)	Staines (rural).
Hampton Wick.	Sunbury.	Uxbridge (rural).
Hayes.	Yiewsley.	

Account of the various services which have been considered and provided for, to greater or less extent, is as follows :—It is necessary to preface this by stating that owing to the great need for national economy the extension of the services which have already been established, and the provision of others which have been formulated and are included in the scheme, ceased during the year 1921.

The first service which may be referred to is that of staff. Having regard to the intimate connection between the work of inspection and treatment of school children already in operation and that of Maternity and Child Welfare, it was decided, after consultation with the Education Committee, that the medical and nursing staff already employed by the latter should, after necessary augmentation, carry out the combined duties. The staff at the end of 1921 engaged on this combined work consisted of 7 Medical Officers (3 women and 4 men) and 21 nurses. Each Medical Officer is allotted a district and the nurses work under their immediate control and supervision. The Medical Officers are supervised from the Central Office.

In order to carry out the work and for the convenience of mothers and children, a total of 23 Maternity and Child

Welfare Centres had been provided by 1921, and to arrange for the work done at these Centres, to maintain local interest, and to deal with matters of detail, the Council have appointed Local Welfare Committees, the women members of which, in addition, render valuable assistance by acting as voluntary workers at and in connection with the matters arising at the Centres.

During 1921 application was made for the provision of three additional Centres in places distant from any Centre, but although it was felt that they were needed it was decided, owing to the need for economy, not to provide them at present.

The centres which have been provided are at :—

Potters Bar.	Eastcote.	Staines(Urban).
South Mimms	Harefield.	Sunbury.
Friern Barnet (2).	Northolt.	Feltham.
Edgware.	Hillingdon.	Hampton Wick.
Headstone.	Yiewsley.	Greenford.
Pinner.	Harlington.	Hayes.
Ruislip-	Ashford	
Northwood.	Shepperton.	

Arrangements have been made for the supply at these Centres of articles of food. This is limited to (a) fresh milk ; (b) dried milk ; and (c) Virol or Chymol, and (to a small extent) cod-liver oil and malt. The last-mentioned may more properly be termed drug-foods. These foods are only supplied to mothers on the advice and written direction of the Medical Officers of the Centres and on the opening of Centres a definite method of procedure was drawn up and issued, in printed form with necessary certificates, to all the Centres with the object of safeguarding the issue of these articles. The procedure was fully reconsidered by the Council in the early part of 1921, and revised on the experience gained, and it was again considered in December, 1921, on receipt of Circular 267 of the Ministry of Health, but it was not considered necessary to make any alteration in it, and the Ministry of Health subsequently sanctioned the continuance of the arrangements in force, and the details of the procedure laid down.

The Council have made provision for Midwifery Services in areas insufficiently supplied, by appointing three whole-time officers (Greenford, Yiewsley, Ruislip-Northwood) and by subsidizing one in another area (Friern Barnet).

The provision of maternity hospital accommodation for women has also been considered, and an adequate scheme was drawn up to provide such institutions in conjunction with some of the adjoining District Councils. The carrying out of these schemes has been postponed, with the approval of the Ministry of Health, owing to the need for economy.

The provision of Dental Treatment for nursing and expectant mothers and children under five years of age, was arranged in conjunction with the dental treatment of school children. This was commenced, but in the middle of 1921, one of the dental surgeons and a nurse resigned, it was decided not to fill the posts, and to suspend the work on grounds of economy.

The facilities for Ophthalmic Treatment provided by the Education Committee for school children have been extended and made available for cases referred from the Welfare Centres by the Medical Officers in charge.

No development of the Council's scheme took place during 1921, in regard to such services as hospital treatment for cases of complicated confinement, the provision of day nurseries, of home helps, of convalescent homes for children under five, &c.

As regards the work carried out during 1921, weekly sessions are held at all the 23 centres, except one, where meetings are held fortnightly, and a Medical Officer attends each of these, except three where it has been found that a fortnightly attendance is sufficient. The meetings are also attended by one or more of the nurses according to the size of the Centre, which is primarily an educational institution, providing advice and teaching to mothers in the care and management of infants and young children, with a view to maintaining them in good health. Its essential function is to supervise the healthy child rather than to treat the sick, though the incidental treatment of simple ailments may necessarily come within its scope. In addition, the meetings are attended by voluntary workers, varying in number,



and their work and the assistance which they give is of an invaluable nature, goes far to make the sessions successful, and to maintain the objects aimed at.

The total number of meetings in 1921 was 1,114.

The total number of *new cases* attending the Centres was :—

Expectant mothers	...	...	...	...	97
Infants	...	...	...	...	1,008
Children (1-5 years)	...	...	...	...	454

The total *attendances* at the Centres were :—

Expectant mothers	...	...	...	...	718
Other mothers attending with infants	...	...	...	...	23,746
Infants	...	...	...	...	16,271
Children (1-5)	...	...	...	...	13,053

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Total attendances      ... 53,788

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The average attendance of infants and children at each session or meeting of the Centres was 26·3, as compared with 22·6 per session in 1920, and 21 in 1919. The total number of home visits by the health visitors in connection with Maternity and Child Welfare work was 23,805.

Figures of the amount of milk, &c., issued during the calendar year 1921, are not available, but during the financial year ended 31st March, 1922, totals of 15,772 lbs. of dried milk, and 2,411 lbs. of Virol or similar substances were issued from the Centres, either at cost price, for part payment, or free of charge. The cost of these articles was £1,783 11s. 10d., and towards this sum mothers attending the Centres contributed the sum of £1,426 2s. 5d., leaving a charge on the scheme of £357 9s. 5d. In addition to these articles supplied from the Centres, orders were issued on local tradesmen for the supply of fresh milk to the value of £445 2s. 2d., towards which £14 4s. 3d. was contributed by the mothers. The total cost of articles of food and nourishment provided during the year ended 31st March, 1921, therefore, was £2,228 14s., of which £788 7s. 4d. was a charge on the Council's scheme. These figures are a reduction on those of the previous year, when the total cost was £3,028 17s. 6d., of which £1,708 13s. 4d. was a charge to the scheme.

### **Administration of the Midwives Acts during the year 1921.**

The usual procedure has been followed, which has been reported in previous Reports, to ascertain the number of midwives practising in the County and to ensure that they should make the necessary notifications required by the rules of the Central Midwives Board.

There are some districts in the County in which the number of births, occurring each year, which would be attended by a midwife is not sufficient to induce a Certified Midwife, who desires to make her living by her calling, to go and reside in.

In order to meet this difficulty the County Council, under their Maternity and Child Welfare Scheme, have appointed three whole-time officers who are Certified Midwives, to attend any cases arising in the areas of Greenford, Ruislip-Northwood, and Yiewsley. In one other district, namely Friern Barnet, a midwife who is in private practice but where the work is not sufficient to maintain her, the Council have arranged to subsidise her so as to induce her to remain there.

Application has also been received from two other localities in which it is felt that the services of a midwife are needed, but owing to the need for economy, and to the fact that no further development in the Council's Maternity and Child Welfare Scheme can at present be undertaken, no action has yet been taken in the matter.

A total of 278 midwives sent in notification of intention to practise during 1921. The districts where they resided and the changes during the year are summarized in the following table :—

District.	Total number of midwives practising during 1921.	Removed from district during 1921.	Prac- tising tempo- rarily during 1921.	Number in district end of 1921.	District.	Total number of midwives practising during 1921.	Removed from district during 1921.	Prac- tising tempo- rarily during 1921.	Number in district end of 1921.
Urban—					Brought forward...	126	6	16	104
Acton...	10	1	1	8	Urban— <i>continued.</i>				
Brentford	7	1	1	5	Southall-Norwood ...	5	—	—	5
Chiswick	6	—	—	6	Southgate ...	12	4	1	7
Ealing (Borough)	11	—	—	11	Staines ...	2	—	—	2
Edmonton	13	2*	1	10	Sunbury ...	2	—	—	2
Enfield	14	—	3	11	Teddington ...	4	—	—	4
Feltham	3	—	—	3	Tottenham ...	17	—	2	15
Finchley	5	—	1	4	Twickenham ...	8	—	—	8
Friern Barnet...	3	—	1	2	Uxbridge ...	3	—	—	3
Greenford	1	—	—	1	Wealdstone ...	3	—	—	3
Hampton	3	—	—	3	Wembley ...	2	—	—	2
Hampton Wick	—	—	—	—	Willesden ...	20	4	2	14
Hanwell	3	1	—	2	Wood Green ...	8	—	1	7
Harrow	2	—	—	2	Yiewsley ...	3	—	—	3
Hayes ...	2	—	—	2	Rural—				
Hendon	9	1	2	6	Hendon ...	2	—	1	1
Heston and Isleworth	22	—	4	18	South Mimms ...	—	—	—	—
Hornsey (Borough)	10	—	1	9	Staines ...	10	1	2	7
Kingsbury	1	—	1	—	Uxbridge ...	1	—	—	1
Ruislip-Northwood	1	—	—	1	Extra County ...	50	6	12	32
Carried forward	126	6	16	104	Totals...	278	21	37	220

\* One dead.



From the districts of Hampton Wick and South Mimms no notifications were received from midwives.

In the Kingsbury district a temporary notification was received from a midwife who desired to attend one case.

In addition to the 278 midwives who notified the County Council of their intention to practise (permanently and temporarily) 408 other certified midwives reside in the County. Of these, 26 are employed in Poor Law Infirmaries. They do not come under the supervision of the Local Supervising Authority, as midwives exercising their calling in Workhouses or Poor Law Infirmaries are specially exempt from supervision by Rule E26 of the Central Midwives Board.

Thus the total number of midwives in the County during 1921 was as follows :—

Midwives who notified their intention to	
practise ... ..	278
Midwives not practising ... ..	408
	<hr/>
	686
	<hr/>

With two exceptions, viz., Kingsbury and South Mimms, there is no reason to think that in any district in the County area there is inadequacy in the number of practising midwives. In neither of the two districts named would there be sufficient work to occupy the time of a midwife.

The total number of inspections made was 1,313.

*Qualifications of Midwives.*—The qualifications of the midwives in practice are as follows :—

195 have passed the Examination of the Central Midwives Board.

37 possess the London Obstetrical Society certificate.

4 possess hospital certificates other than that of the London Obstetrical Society.

42 were enrolled by reason of having been in *bona fide* practice previous to the passing of the Act.

*Uncertified Women.*—On 1st April, 1910, Section 1 (2) of the Midwives Act came into force. This requires that no woman shall “habitually and for gain” attend women in

confinement except under the direction of a medical practitioner. This requirement does not apply to women rendering assistance in an emergency.

During the year 37 visits were made to uncertified women and 29 visits to patients where suspicion arose of contravention of the Act by monthly nurses.

No evidence was obtained during 1921 that any uncertified woman was practising as a midwife "habitually and for gain," and it was not therefore found necessary to institute any proceedings. Eighteen women were verbally cautioned by the Inspectors with satisfactory results. Five cautionary letters were sent by the Committee.

*Number of Births attended by Midwives.*—At the end of each year a form is sent to each practising midwife in the County, asking her to state the number of cases she has attended as midwife and in the capacity of a nurse under a doctor, respectively, during the previous twelve months.

The figures obtained are not complete, as some of the midwives had left the County before the end of the year, and information could not be obtained from them.

It will be seen from the following that 11,300 births were attended by these women as midwives, and 1,723 as nurses under medical men, in the whole County.

The number attended in each district is as follows, (a) as midwife, (b) as nurse with a doctor. Acton (Borough) (a) 453, (b) 53; Brentford (a) 250, (b) 7; Chiswick (a) 524, (b) 46; Ealing (Borough) (a) 185, (b) 128; Edmonton (a) 950, (b) 130; Enfield (a) 478, (b) 68; Feltham (a) 63, (b) 5; Finchley (a) 74, (b) 57; Friern Barnet (a) 170, (b) 36; Greenford (a) 24, (b) 8; Hampton (a) 145, (b) 24; Hampton Wick (a) nil, (b) nil; Hanwell (a) 108, (b) 16; Harrow (a) 82, (b) 41; Hayes (a) 109, (b) 22; Hendon (a) 237, (b) 95; Heston and Isleworth (a) 532, (b) 90; Hornsey (Borough) (a) 115, (b) 112; Kingsbury (a) 1, (b) nil; Ruislip-Northwood (a) 34, (b) 29; Southall-Norwood (a) 253, (b) 36; Southgate (a) 81, (b) 43; Staines (a) 25, (b) 5; Sunbury (a) 90, (b) 20; Teddington (a) 151, (b) 45; Tottenham (a) 1,929, (b) 40; Twickenham (a) 475, (b) 55; Uxbridge (a) 100, (b) 49; Wealdstone (a) 88, (b) 20; Wembley (a) 59, (b) 47; Willesden (a) 864, (b) 106; Wood Green (a) 287, (b) 40; Yiewsley (a) 102, (b) 5. Rural

districts.—Hendon (a) 1, (b) 100 ; South Mimms (a) nil, (b) nil ; Staines (a) 255, (b) 55 ; Uxbridge (a) 35, (b) 4. Extra County (a) 1,971, (b) 86.

*Notification.*—By the rules of the Board midwives are required to notify the County Council :—

- (1) When they advise the calling in of medical assistance to one of their patients ;
- (2) When a child is stillborn and a doctor is not in attendance ;
- (3) When a death occurs of mother or child and a medical man is not present ;
- (4) When they prepare a body for burial ;
- (5) When they advise artificial feeding ;
- (6) When they are liable to be a source of infection.

The notifications received from midwives during 1921 were as follows :—

Medical aid	... 1,366	Laying out the dead...	9
Stillbirths	... 159	Artificial feeding	... 30
Deaths of infants...	25	Liability to be a source	
„ mothers	—	of infection...	... 28

Inquiry is made into all these notifications, and details obtained as to each case in order to see if the rules of the Central Midwives Board have been duly observed.

All notifications relating to :—

High temperature,	Rash on infants,
Sore eyes in infants,	Liability of being a source
Puerperal fever,	of infection,

are regarded as urgency cases, and the midwife is visited without delay to see that prompt and adequate steps are being taken to prevent dangerous complications or spread of infection.

During the year 1921 the notifications received from midwives as to calling in medical assistance were as follows :—

Ante-natal	...	...	...	...	66
During labour...	...	...	...	...	723
During lying-in period	...	...	...	...	180
For infant	...	...	...	...	397
Total	...	...	...	...	<u>1,366</u>



The number of stillbirths notified is 1·4 per cent. of the total births attended by midwives.

*Puerperal Fever.*—By the co-operation of the local Medical Officers of Health, early information is obtained whenever puerperal fever is notified by a medical practitioner in a patient who has been attended by a midwife.

The midwife who has been in attendance is at once visited by the Inspector of Midwives and advised as to the steps to take to prevent the spread of infection.

The total number of cases attended by midwives, and which were afterwards notified as suffering from puerperal fever, was 18; 5 cases proved fatal, the others made a good recovery.

*Ophthalmia Neonatorum.*—It is the duty of every certified midwife, who has reasonable grounds for supposing that a child upon whom she is in attendance, or whom she is called in to visit in the course of her practice, is suffering from ophthalmia neonatorum, to notify the case to the local Medical Officer of Health, unless the case has been already notified by a medical practitioner.

By the rules of the Central Midwives Board a midwife is required to send for medical aid whenever a child has “*inflammation of, or discharge from, the eyes, however slight.*” In most instances strict attention to this rule will lead to the case being under medical treatment before a definite diagnosis of ophthalmia neonatorum can be made, and the question of diagnosis will rest with the medical practitioner. In practice it is found that midwives have been conscientious in their observation of the rules of the Board.

The number of cases during 1921 in which midwives advised medical aid being sent for on account of inflammation of babies' eyes was 122.

As result of inquiry into the 122 cases mentioned above, it was found that 61 were not cases of ophthalmia.

As regards the remaining 61 cases, the result of treatment has been satisfactory, but in two instances some impairment to vision resulted.

*Inspection and action taken.*—The number of visits made during 1921 was as follows :—

To notified midwives...	...	...	...	1,083
To midwives who had not notified...	...	...	...	19
To uncertified women	...	...	...	37
To patients' houses, in connection with the occurrence of cases of ophthalmia or other complaints	...	...	...	287
To other persons in connection with necessary inquiries under the Act	...	...	...	87
				<hr/>
				1,513*
				<hr/>

Verbal cautions were given by the officers in 32 instances.

The conduct of one midwife was reported to the Central Midwives Board.

The case was still pending at the end of the year.

As regards uncertified women it was not necessary to take any proceedings for practising as midwives against the provisions of the Act.

*Payment of Fees to Medical Practitioners.*—By the Midwives Act, 1918 (Section 14), the County Council, as Local Supervising Authority, is required to pay fees to medical practitioners who are called in by midwives. The scale of fees has been fixed by the Ministry of Health.

The County Council is empowered to “recover the fee from the patient, or from the husband or other person liable to maintain the patient, either summarily or otherwise as a civil debt, unless it be shown to their satisfaction that the patient or her husband or such other person is unable by reason of poverty to pay such fee.”

During the year 1921 the number of applications received from medical practitioners for payment of fees was 503.

During the same period 1,366 notifications of sending for medical aid were received from midwives. From this, it would appear that in 63 per cent. of cases in which a doctor

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\* In addition 135 visits were made to Nursing Homes in connection with the question of need of powers to register Lying-in homes.

had been summoned payment had been made to the doctor direct by the family, and that only in 37 per cent. of cases has there been need for the doctor to apply to the County Council for payment of his fee.

### **Registration of Lying-in Homes.**

During recent years, information came to the knowledge of the County Council in connection with the administration of the Midwives Acts, that homes were being established in the County to which women might go for the purpose of their confinements and lying-in. Such homes are not always carried on by nurses possessing the certificate of the Central Midwives Board enabling them to act as midwives, and no power existed for inquiry or inspection under the Midwives Acts. The attention of the Council had been specially directed to some of them by communications, and in one or two instances by complaints. Inquiry on the subject tended to show that in the early part of 1921, there were between 70 and 80 homes where lying-in cases were taken. Supervision and control of homes of this sort may be considered as work closely connected with and supplementary to the supervision of midwives under the Midwives Acts. In view of the fact that in the adjoining County of London, powers had been in force during recent years for the registration and inspection of similar homes, and that this might tend to cause persons refused registration in London to establish such homes in Middlesex, the County Council, when promoting the Middlesex County Council (General Powers) Act in Parliament, decided to ask for powers requiring the registration of lying-in homes, providing for their inspection and enabling by-laws for specified purposes to be made.

The powers applied for were passed by Parliament, and were to come into force on the 1st February, 1922.

Notices of the provisions and requirements of the Act were published by the Council, and particulars were sent to all persons known to be carrying on a lying-in home. During the last two or three months of the year, a number of applications for registration were received, and were being dealt with by the Committee.



### Hospital Accommodation.

(A) FOR ORDINARY INFECTIOUS DISEASES.—Hospital accommodation for these diseases, viz., scarlet fever, diphtheria and typhoid fever has been provided, either singly or jointly, by 26 District Authorities.

12 District Councils have provided hospitals singly.

14 District Councils have jointly provided 5 hospitals.

1 District, viz., Tottenham, has, by arrangement with the Metropolitan Asylums Board, provided accommodation for 100 patients at one of the hospitals of this Authority.

10 Districts have no separate hospital accommodation of their own, viz., Finchley, Friern Barnet, Greenford, Hanwell, Hampton Wick, Kingsbury, Teddington, Wealdstone, and Wood Green Urban Districts, and South Mimms Rural District. They have arrangement with or make use of the hospitals provided by other Authorities.

The total number of beds at these hospitals, including the 100 beds available for the Tottenham District, is 1,089, which is in the proportion of 1 bed to 1,151 population.

A short summary of the accommodation available for each sanitary district, brought up to date as the result of recent inquiry, is set out below:—

*Acton*.—74 patients, 23 indoor staff: laundry, Manlove Alliott's disinfecter, ambulance shed and mortuary.

*Brentford*.—40 patients, 7 indoor staff; laundry, steam disinfecter, ambulance shed, mortuary.

*Chiswick and Ealing Joint*.—84 patients, 21 indoor staff; laundry, Thresh disinfecter, ambulance shed, mortuary.

*Edmonton and Enfield Joint*.—163 patients, 1 Medical Superintendent, 55 indoor and 4 outdoor staff; laundry, disinfecting station, bacteriological laboratory, mortuary.

*Feltham*.—Joint Authority, Staines Joint Isolation Hospital.

*Finchley*.—Patients are sent to Hornsey, Barnet, London Fever, or the Enfield—Edmonton Joint Hospitals. Arrangements are being made for joint ownership of Hornsey Isolation Hospital by Hornsey, Finchley and Wood Green.

*Friern Barnet*.—By arrangement patients are sent to Southgate Urban District Isolation Hospital, where 12 beds are available.

*Greenford*.—No definite arrangements have been made.

*Hampton*.—10 patients, 3 indoor staff; laundry, disinfecter, mortuary, ambulance shed.

*Hampton Wick*.—Patients are sent to Hampton or Tolworth Isolation Hospitals.

*Hanwell*.—Patients are sent to Acton Isolation Hospital.

*Harrow*.—38 patients, 6 indoor staff; laundry, Thresh disinfecter, mortuary, ambulance shed.

*Hayes*.—Joint Authority, Uxbridge Isolation Hospital.

*Hendon (Urban)*.—25 patients, 8 indoor staff; laundry, Washington Lyons' disinfecter, mortuary, ambulance shed.

*Heston and Isleworth (Joint with Richmond, Surrey)*.—45 patients (on 2,000 cub. ft. basis) or 61 patients (on 1,500 cub. ft. basis), 12 indoor staff. (About 24 beds available for Heston and Isleworth). Laundry, Washington Lyons' disinfecter, mortuary, ambulance shed.

*Hornsey*.—130 patients, 1 Medical Superintendent, 42 indoor staff; laundry, disinfecter, mortuary, ambulance shed.

*Kingsbury*.—Patients are sent to hospitals in outside areas when necessary.

*Ruislip-Northwood*.—Joint Authority, Uxbridge Isolation Hospital.

*Southall-Northwood*.—29 patients, 6 indoor staff; laundry, Thresh disinfecter, mortuary, ambulance shed.

*Southgate*.—30 patients, 19 indoor staff; laundry, disinfecter, mortuary, ambulance shed.

*Staines (Urban)*.—Joint Authority, Staines Joint Hospital.

*Sunbury*.—Joint Authority, Staines Joint Isolation Hospital.

*Teddington*.—Patients are sent to Tolworth Joint, Molesey, London Fever, or Twickenham Hospitals.

*Tottenham*.—Patients are sent to the North-Eastern Hospital, where 100 beds are allotted.

*Twickenham*.—24 patients, 7 indoor staff; laundry, Washington Lyons' disinfecter, mortuary, ambulance shed.

*Uxbridge (Urban)*.—Joint Authority, Uxbridge Isolation Hospital.

*Wealdstone*.—Patients are sent to Hendon (Rural) Isolation Hospital.

*Wembley*.—16 patients, staff housed in a cottage; laundry, small Thresh disinfecter (new disinfecting station to be provided).

*Willesden*.—150 patients, 1 Medical Superintendent, 46 indoor staff; laundry, ambulance station.

*Wood Green*.—Patients are sent by arrangement to Hornsey Isolation Hospital and London Fever Hospital.

*Yiewsley*.—Joint Authority, Uxbridge Joint Hospital.

*Hendon (Rural)*.—34 patients, 6 indoor staff; laundry, disinfecter, mortuary, ambulance shed.

*South Mimms*.—Patients are sent to Barnet Isolation Hospital.

*Staines Joint Hospital*.—60 patients, 9 nursing staff, also accommodation for necessary domestic servants; laundry, disinfecter (Manlove Alliott's), mortuary, ambulance shed.

*Uxbridge Joint Hospital*.—37 patients, 8 indoor staff; laundry, Washington Lyons' disinfecter, mortuary, ambulance shed.



(B) FOR SMALLPOX.—The provision made in the County is as follows :—

A Joint Hospital Board of 23 districts (viz., Acton, Brentford, Chiswick, Edmonton, Enfield, Feltham, Finchley, Friern Barnet, Greenford, Hampton Wick, Hanwell, Harrow, Hendon Urban, Kingsbury, Southgate, Staines Urban, Sunbury, Tottenham, Wealdstone, Wembley, Wood Green, South Mimms, and Staines Rural) have provided Clare Hall Hospital with ... .. 228 beds.

Also a room used as patients' dining room could be converted into a ward for 22 patients, in addition to above number of 228, making a total of 250 possible beds at Clare Hall.

Five districts (viz., Uxbridge Urban, Uxbridge Rural, Ruislip-Northwood, Hayes and Yiewsley), have provided a Joint Hospital at Yeading with 24 beds.

The position as to accommodation in the remaining districts is as follows :—

*Ealing.*—Hospital for 12 patients, 6 rooms for indoor staff ; laundry, ambulance shed.

*Heston and Isleworth.*—Joint Hospital with Richmond, Surrey. Total accommodation, 13 beds (of which 5 are for use of Heston and Isleworth). 4 indoor staff ; laundry, disinfector, 2 ambulance sheds, mortuary.

*Hornsey.*—Patients sent to Uxbridge Joint Hospital where, by arrangement, 10 beds are allotted.

*Willesden.*—Hospital at Kingsbury partly burned down a few years ago. This is not considered suitable, and the District Council have the matter under consideration at present.

*Twickenham.*—A small hospital, with 4 beds, now no longer regarded as suitable, and the District Council have the matter under consideration at present.

*Teddington, Hampton, Southall-Norwood.*—No accommodation provided.

*Hendon (Rural).*—A site has been rented at Marsh Farm, Stanmore, and a tent affording accommodation for 10 patients is available for erection at short notice.

Not including Twickenham and Hendon Rural, the total number of beds at these Hospitals is 269, which is in the proportion of 1 bed to 4,658 population.

If the accommodation provided by Twickenham and Hendon Rural Districts, together with the additional accommodation which could be provided in the dining room at Clare Hall Hospital, be added, the total accommodation available for the County would suffice for 301 patients.

The above account shows that there are in the County several districts which have a considerable combined population in which the hospital accommodation for smallpox is either inadequate or non-existent. The multiplication of smallpox hospitals is not a desirable proceeding, and in view of the fact that a large hospital, viz., Clare Hall, already exists in the County, the most advantageous course would be that the districts referred to should take steps without delay to have the right of using this accommodation by becoming constituent members of the Middlesex Districts Joint Smallpox Hospital Board, the authority having control of the Clare Hall Hospital.

### **Food and Drugs Acts. Public Health (Milk and Cream) Regulations 1912 and 1917.**

The following particulars showing work carried out during 1921 by the County Council in connection with the food supply have been prepared by the Chief Officer of the Public Control Department :—

SALE OF FOOD AND DRUGS ACTS.—The number of formal and informal samples taken under these Acts is as follows :—

	Formal Samples.		Informal Samples.	
	Taken.	Adul- terated.	Taken.	Adul- terated.
Aerating powder...	—	—	1	—
Ale ... ..	3	—	—	—
Almonds, ground ...	—	—	7	—
Baking powder ...	—	—	2	—
Blanc mange powder ...	—	—	1	—
Butter ... ..	3	—	334	3
Cake ... ..	—	—	13	5
Camphorated oil ...	—	—	11	1
Cheese ... ..	—	—	8	—
Cheese paste ... ..	—	—	1	—
Chocolates ... ..	—	—	2	—
Cocoa ... ..	—	—	6	—
Coffee ... ..	—	—	7	—
Cream ... ..	30	25	87	55
Cream, preserved ...	1	—	74	4
Curry powder ... ..	—	—	1	—
Custard ... ..	—	—	1	—
Dripping ... ..	—	—	8	—
Egg powder ... ..	—	—	3	—
Egg substitute powder ...	—	—	1	—
Fish paste ... ..	—	—	4	—
Flour, self-raising ...	—	—	1	—
Ginger ... ..	—	—	2	—
Iodine, tincture of ...	—	—	8	1
Jelly ... ..	—	—	2	—
Jelly, crystals ... ..	—	—	4	—
Jelly tablets ... ..	—	—	1	—
Carried forward ...	37	25	590	69



	Formal Samples.		Informal Samples.	
	Taken.	Adul- terated.	Taken.	Adul- terated.
Brought forward ...	37	25	590	69
Lard ... ..	—	—	13	—
Lemonade powder ...	—	—	22	—
Lemon squash ... ..	—	—	1	—
Lime juice cordial ...	—	—	2	—
Margarine ... ..	1	—	8	—
Milk ... ..	1,163	127	2,296	212
Milk, new... ..	67	21	1	1
Milk, skimmed ... ..	8	1	—	—
Milk, separated ... ..	58	6	70	—
Milk, mixed ... ..	4	—	—	—
Milk, pudding ... ..	2	—	—	—
Mustard compound ...	—	—	1	—
Olive oil ... ..	—	—	4	—
Peas, green ... ..	—	—	1	—
Pepper, white ... ..	1	—	3	—
Sausages ... ..	—	—	1	—
Scone powder ... ..	—	—	1	—
Sugar ... ..	—	—	1	—
Sweets ... ..	—	—	14	—
Whisky ... ..	11	2	—	—
Total ... ..	1,352	182	3,029	282

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS.—The following are details of the work done under the regulations :—

1. *Milk and Cream not Sold as Preserved Cream.*

	(a) Number of Samples examined for the presence of a Preservative.	(b) Number in which Preservative was reported to be present.
Milk ....	3,669	6
Cream ....	117	80 (including 55 informal samples)

The nature of the preservative in each case in column (b), and the action taken are as follows :—

*Milk.*

Sample 1. Boracic acid ·0418 per cent. Summons issued, but subsequently withdrawn as vendor's farmer was found to be responsible.

3 informal samples contained formalin. Subsequent formal samples were found to be free from formalin.

*Separated Milk.*

Sample 1. Boracic acid ·0321 per cent.

Sample 2. Boracic acid ·03423 per cent.

In these cases convictions were obtained under Section 6 of the Sale of Food and Drugs Act, 1875. In the first case, the vendor was fined £2, and a similar fine was imposed in the second case, together with costs of 10s. 6d.

*Cream.*

Fifty-five informal samples were taken, the result of analysis of which showed the presence of boracic acid. Formal samples were obtained, 25 of which were reported against.

In 4 instances, satisfactory explanations for the presence of preservative were given, and the vendors cautioned. As regards the remaining 21 instances, summonses were issued, and the results of the proceedings are as follows.

In all these the preservative found was boracic acid, and in the following percentages :—

·46 per cent.	Fine £1 and 10s. 6 <i>d.</i> costs.
·14 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·26 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·40 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·34 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·54 per cent.	Fine £6 6s. and 10s. 6 <i>d.</i> costs.
·55 per cent.	Fine 5s. and 10s. 6 <i>d.</i> costs.
·40 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·19 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·40 per cent.	Fine 10s. and 10s. 6 <i>d.</i> costs.
·20 per cent.	Fine 10s. and 10s. 6 <i>d.</i> costs.
·46 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·39 per cent.	Fine £3 and 10s. 6 <i>d.</i> costs.
·52 per cent.	Fine £2 and 10s. 6 <i>d.</i> costs.
·43 per cent.	Fine £1 and 10s. 6 <i>d.</i> costs.
·31 per cent.	Costs only, 14s. 6 <i>d.</i>
·40 per cent.	Fine £1 11s. 6 <i>d.</i> “as costs.”
·52 per cent.	Fine £10 and 10s. 6 <i>d.</i> costs.
·37 per cent.	Fine £5 and 10s. 6 <i>d.</i> costs.
·42 per cent.	Fine £7 and 10s. 6 <i>d.</i> costs.
·32 per cent.	Fine £15 and £5 5s. costs.

As regards 10 samples, the convictions were obtained under Section 6 of the Sale of Food and Drugs Act, 1875.

## 2. *Cream Sold as Preserved Cream.*

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct :—

(i) Correct statements made	...	...	71
(ii) Statements incorrect	...	...	4
			<hr/>
			75
			<hr/>

(iii) Percentage of preservative found in each sample :—

Four informal samples contained excess of boracic acid. No excess of boracic acid was found in subsequent formal samples.



(b) Determination made of milk fat in cream sold as preserved cream :—

(i) Above 35 per cent.	...	...	...	75
(ii) Below 35 per cent.	...	...	...	0
				—
				75
				—

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V (1) and the proviso in Article V (2) of the Regulations have not been observed.—Nil.

(d) Particulars of each case in which the Regulations have not been complied with.—Nil.

3. *Thickening Substances*.—Nil.

C. W. F. YOUNG,  
*County Medical Officer.*

1st July, 1922.

# County and District Rates, 1921.

## County and District Rates.

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Population.		Number and Rate per 1,000 Population.										Infant deaths.	
(a)	(b)	Births.	Deaths.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Tuberculosis (all forms).		No. and mortality per 1,000 births.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
THE COUNTY	1,260,364	1,258,340	25,191 20.0	12,763 10.1	8,130 6.45	43 0.03	3,720 2.95	295 0.23	81 0.06	18 0.01	1,999 1.59	1,180 0.94	1,681 67
Urban Districts.													
ACTON	62,000	62,000	1,314 21.2	650 10.5	632 10.20	1 0.02	204 3.29	16 0.26	1 0.02	1 0.02	112 1.81	67 1.08	92 70
BRENTFORD	17,320	17,320	407 23.5	198 11.4	179 10.33	— —	62 3.58	4 0.23	— —	— —	18 1.04	15 0.87	23 57
CHISWICK	40,950	40,950	816 19.9	512 12.5	247 6.03	2 0.05	105 2.56	8 0.20	— —	— —	56 1.37	45 1.10	75 92
EALING	67,800	67,800	1,144 16.9	721 10.6	664 9.79	4 0.06	183 2.70	24 0.35	8 0.12	4 0.06	102 1.50	45 0.66	72 63
EDMONTON	67,800	67,800	1,665 24.6	685 10.1	430 6.34	2 0.03	420 6.19	32 0.47	6 0.09	1 0.01	121 1.78	86 1.27	116 70
ENFIELD	61,400	61,400	1,198 19.5	598 9.7	218 3.35	— —	127 2.07	13 0.21	— —	1 0.02	103 1.68	66 1.07	82 68

(a) Population estimated by the Registrar-General for birth-rate (total population).  
 (b) " " " " death-rate (civilian population).

## District Rates, 1921—continued.

Urban Districts.	Population.		Number and Rate per 1,000 Population.										Infant deaths.
	(a)	(b)	Births.	Deaths.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Tuberculosis (all forms).		No. and mortality per 1,000 births.
					Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	
FELTHAM ....	6,400	6,400	122	57	17	—	3	—	1	—	8	5	7
FINCHLEY ....	46,680	46,680	19·1	8·9	2·66	—	0·47	—	0·16	—	1·25	0·78	57
FRIERN BARNET	17,510	17,510	879	531	175	1	99	10	11	1	59	50	63
			18·8	11·4	3·75	0·02	2·12	0·21	0·24	0·02	1·26	1·07	72
GREENFORD	1,448	1,448	293	142	76	2	26	2	6	—	18	11	21
HAMPTON ....	10,560	10,560	16·7	8·1	4·34	0·11	1·48	0·11	0·34	—	1·03	0·63	72
			24	10	9	—	4	—	—	—	—	—	—
HAMPTON WICK	3,220	2,754	16·6	6·9	6·22	—	2·76	—	—	—	—	—	83
			177	112	29	—	104	3	4	—	13	6	16
HANWELL ....	20,650	20,650	16·8	10·6	2·75	—	9·85	0·28	0·38	—	1·23	0·57	90
			46	32	4	—	6	—	1	—	4	3	2
HARROW ....	19,460	19,460	14·3	11·6	1·24	—	1·86	—	0·31	—	1·24	1·09	43
			442	214	311	2	35	—	—	—	30	23	37
HAYES ....	6,380	6,380	21·4	10·4	15·1	0·10	1·69	—	—	—	1·45	1·11	84
			322	186	78	—	83	5	1	—	47	14	17
HENDON ....	55,500	55,500	16·5	9·6	4·01	—	4·27	0·26	0·05	—	2·42	0·72	53
			136	52	48	—	5	—	—	—	12	8	8
			21·3	8·2	7·52	—	0·78	—	—	—	1·88	1·25	59
			994	443	154	—	137	9	4	—	83	39	61
			17·9	8·0	2·77	—	2·47	0·16	0·07	0·04	1·50	0·70	61



## County and District Rates.

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HESTON AND ISLEWORTH	47,290	45,732	950	516	219	6	102	12	5	—	60	45	66
HORNSEY ....	87,600	87,600	1,468	968	594	3	188	13	2	—	163	86	69
KINGSBURY	1,852	1,852	16.8	11.1	6.78	0.03	2.15	0.15	0.02	—	1.86	0.98	72
RUISLIP—	9,000	9,000	67	13	5	—	—	—	—	—	—	1	49
NORTHWOOD			36.2	7.0	2.70	—	—	—	—	—	—	0.54	2
SOUTHALL—	30,800	30,800	166	67	16	—	6	—	1	—	—	6	30
NORWOOD			18.4	7.4	1.78	—	0.67	—	0.11	—	—	0.67	10
SOUTHGATE....	38,900	38,900	581	269	272	4	30	4	1	2	33	28	60
STAINES ....	7,240	7,240	18.9	8.7	8.83	0.13	0.97	0.13	0.03	0.06	1.07	0.91	37
SUNBURY ....	5,360	5,360	603	307	224	—	50	4	1	—	39	32	64
TEDDINGTON	21,060	21,060	15.5	7.9	5.76	—	1.29	0.10	0.03	—	1.00	0.82	22
TOTTENHAM	149,200	149,200	136	80	18	—	8	1	—	—	1	4	36
TWICKENHAM	34,700	34,700	18.8	11.0	2.49	—	1.10	0.14	—	—	0.14	0.55	11
UXBRIDGE ....	13,010	13,010	149	53	8	—	6	1	—	—	3	7	81
WEALDSTONE	13,520	13,520	27.8	9.9	1.49	—	1.12	0.19	—	—	0.56	1.31	7
			452	233	30	—	23	2	1	1	15	26	47
			21.5	11.1	1.42	—	1.09	0.09	0.05	0.05	0.71	1.23	25
			3,402	1,557	1,044	6	569	49	6	1	328	162	55
			22.8	10.4	7.00	0.04	3.81	0.33	0.04	0.01	2.20	1.09	232
			755	402	103	2	54	2	—	—	50	25	68
			21.8	11.6	2.97	0.06	1.56	0.06	—	—	1.44	0.72	64
			265	119	52	1	20	3	—	—	17	10	85
			20.4	9.1	4.00	0.08	1.54	0.23	—	—	1.31	0.77	17
			242	107	90	1	41	2	1	1	14	8	64
			17.9	7.9	6.66	0.07	3.03	0.15	0.07	0.07	1.04	0.59	10
													41

(a) Population estimated by the Registrar-General for birth-rate (total population).  
 (b) " " " " death-rate (civilian population).

## County and District Rates.

## District Rates, 1921—continued.

Urban Districts.	Population.		Number and Rate per 1,000 Population.										Infant deaths.
	(a)	(b)	Deaths.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Tuberculosis (all forms).		No. and mortality per 1,000 births.	
				Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths		
WEMBLEY ...	16,110	16,110	138	55	—	45	3	1	—	20	12	14	
WILLESDEN	167,200	167,200	8.6	3.41	—	2.79	0.19	0.06	—	1.24	0.74	45	
			1,678	1,508	3	768	61	16	3	319	153	260	
WOOD GREEN	51,100	51,100	10.0	9.02	0.02	4.59	0.36	0.10	0.02	1.91	0.92	73	
			493	419	1	141	8	1	—	65	39	63	
YIEWSLEY ...	4,912	4,912	9.6	8.20	0.02	2.76	0.16	0.02	—	1.27	0.76	70	
			42	25	—	7	1	—	—	1	4	4	
<i>Rural Districts.</i>			8.6	5.09	—	1.43	0.20	—	—	0.20	0.81	38	
HENDON ...	17,440	17,440	156	62	2	34	2	1	—	42	9	8	
			8.9	3.56	0.11	1.95	0.11	0.06	—	2.41	0.52	27	
SOUTH MIMMS	3,122	3,122	26	10	—	2	—	—	—	—	2	2	
			8.3	3.20	—	0.64	—	—	—	—	0.64	39	
STAINES ...	25,170	25,170	270	60	—	13	1	—	—	14	24	39	
			10.7	2.38	—	0.52	0.04	—	—	0.56	0.95	72	
UXBRIDGE ...	10,700	10,700	126	45	—	10	—	1	—	29	14	22	
			11.8	4.21	—	0.93	—	0.09	—	2.71	1.31	109	

(a) Population estimated by the Registrar-General for birth-rate (total population).  
 (b) " " " " death-rate (civilian population).

# Causes of, and Ages at, Death during the Year 1921.

Causes of Death. (1)	Net Deaths at the subjoined ages of "Residents," whether occurring within or without the County.									
	All Ages. (2)	Under 1 year. (3)	1 and under 2 years. (4)	2 and under 5 years. (5)	5 and under 15 years. (6)	15 and under 25 years. (7)	25 and under 45 years. (8)	45 and under 65 years. (9)	65 and under 75 years. (10)	75 years and upwards. (11)
Enteric Fever ...	18	—	—	—	5	4	5	4	—	—
Smallpox ...	—	—	—	—	—	—	—	—	—	—
Measles ...	14	5	7	1	—	—	—	1	—	—
Scarlet Fever ...	43	1	2	10	21	3	6	—	—	—
Whooping Cough ...	110	60	33	12	4	1	—	—	—	—
Diphtheria ...	295	4	25	80	166	15	5	—	—	—
Influenza ...	282	12	5	3	6	19	59	89	38	51
Encephalitis Lethargica ...	28	1	—	1	5	2	7	10	2	—
Meningococcal Meningitis ...	19	11	3	—	2	2	1	—	—	—
Tuberculosis of Respiratory System ...	944	1	3	1	24	202	450	232	27	4
Other Tuberculous Diseases ...	236	32	23	29	49	39	37	22	4	1
Cancer, Malignant Disease ...	1,497	—	—	2	3	10	143	707	382	250
Rheumatic Fever ...	52	—	—	3	15	9	9	11	4	1
Diabetes ...	150	—	—	—	5	9	34	48	37	17
Cerebral hæmorrhage, &c. ...	708	—	—	—	—	1	24	163	236	284
Carried forward ...	4,396	127	101	142	305	316	780	1,287	730	608

Deaths.



*Deaths.*

Causes of Death.		Net Deaths at the subjoined ages of "Residents," whether occurring within or without the County.								
(1)	All Ages. (2)	Under 1 year. (3)	1 and under 2 years. (4)	2 and under 5 years. (5)	5 and under 15 years. (6)	15 and under 25 years. (7)	25 and under 45 years. (9)	45 and under 65 years. (9)	65 and under 75 years. (10)	75 years and upwards. (11)
Brought forward	4,396	127	101	142	305	316	780	1,287	730	608
Heart Disease	1,448	—	—	—	19	33	127	455	406	408
Arterio-sclerosis	375	—	—	—	—	—	5	69	115	186
Bronchitis	916	90	21	6	2	2	21	145	224	405
Pneumonia (all forms)	910	190	86	40	34	35	130	218	108	69
Other Respiratory Diseases	169	4	4	4	3	6	23	46	38	41
Ulcer of Stomach or Duodenum	87	—	—	—	1	3	27	42	11	3
Diarrhoea, &c.	427	317	37	15	6	—	11	14	14	13
Appendicitis and Typhlitis	76	—	1	1	18	10	21	18	6	1
Cirrhosis of Liver	65	—	—	—	—	—	4	39	17	5
Acute and Chronic Nephritis	330	2	—	4	6	13	44	134	82	45
Puerperal Sepsis	34	—	—	—	—	7	26	1	—	—
Other Accidents and Diseases of Pregnancy and Parturition	42	—	—	—	—	3	39	—	—	—
Congenital Debility and Malformation, Premature Birth	669	655	3	2	6	2	—	1	—	—
Suicide	114	—	—	—	—	3	35	56	14	6
Other Deaths from Violence	316	23	7	15	41	37	49	86	35	23
Other Defined Diseases	2,385	272	42	33	101	90	260	443	376	768
Causes ill-defined or unknown	4	1	—	—	—	1	—	—	2	—
Total	12,763	1,681	302	262	542	561	1,602	3,054	2,178	2,581